

Serial No. 10/088,260
Art Unit: 1751

DISCUSSION

Before discussing the rejections over the prior art, Applicants deem it prudent to set forth what they consider to be their invention. As presently claimed, the invention is a detergent tablet. The detergent tablet comprises:

- (a) a surfactant component selected from a group consisting of anionic surfactants, nonionic surfactants and amphoteric surfactants and mixtures thereof;
- (b) a non-enzymatic protein and/or derivative thereof in an amount of from 0.1% to 10% by weight based on the weight of the tablet;
- (c) a zeolite; and
- (d) a disintegrating agent.

The dependent claims are directed to compositions which specify the amount of surfactant, the amount of the non-enzymatic protein, the amount of zeolite and the amount of the disintegrating agent present in the tablet.

The application is also directed to a process for making a detergent tablet which imparts a soft feel to clothes treated therewith. The process comprises forming a mixture of the surfactants, the non-enzymatic protein, zeolite and the disintegrating agent and forming the mixture into a tablet.

The claims dependent upon the process claim 21 are directed to tablets containing various proportions of the ingredients.

Applicants respectfully submit that Lang et al. (US 6,051,554) neither teaches nor suggests the present invention.

Serial No. 10/088,260

Art Unit: 1751

Claims 11-13, 15-23 and 25-30 stand rejected under 35 USC 103(a) over Lang et al.

At page 2, the Examiner states:

"Lang et al disclose a granular secondary alkane sulfonate and an additive, which can be converted into a solid extrudate for a washing bar, toilet blocks or bar soaps, to give pressed articles, e.g. tables or compacts (abstract; col. 3, lines 9-12), wherein the secondary alkane sulfonates can be used in the finished detergent and cleaning product formulations in combination with other surfactants (col. 3, lines 14-17) line anionic surfactant and additives such as fatty acid protein condensation products obtained by reaction of fatty acid chlorides with oligopeptides (col. 4, lines 6-61). The total concentration of surfactants, including the secondary alkane sulfonate are from 1 to 99% by weight; and additives such as cellulose derivatives are from 0.1 to 10% by weight based on the weight of the alkane sulfonate (col. 3, lines 1-3). Additional ingredients may be included such as builders such as zeolites in an amount from 5 to 80% by weight (col. 7, lines 40-56). The compositions may optionally contain cationic surfactants, which would be construed as not having cationic surfactants. Lang et al. do not specifically teach of the claimed ingredients in a working example, however, it would have been obvious to one of ordinary skill in the art to combine the non-enzymatic protein in combination with a zeolite, disintegrating agent and surfactant to comprise a bar composition because Lang et al. teach each of the components for the purpose of establishing a bar composition. Accordingly, absent a showing to the contrary, one of ordinary skill in the art would have been motivated to combine the components of Lang et al. for their intended purposes."

Applicants respectfully request that the Examiner reconsider his analysis of Lang et al. and the above quoted statement.

Applicants submit that Lang et al. neither teaches nor suggests including in the composition a disintegrator. In particular, Applicants submit that one skilled in the art would not include a disintegrator in a washing bar, a toilet block or a bar soap. The disintegrator would completely undermine the usefulness and purpose for which the

Serial No. 10/088,260
Art Unit: 1751

washing bar, toilet block or bar soap was fabricated. Applicants submit that these forms are formed to provide ready utilization of the formed article over a substantial period of time. Applicants submit that toilet blocks and bar soaps in particular are expected to last for extended periods when contacted with water. As one skilled in the art would understand, a disintegrator in a bar product which was to be in contact with water, would disintegrate rapidly and would lose its effectiveness as a useful article. Applicants request that the Examiner consider the effect of placing a toilet block in the water in a toilet and having it immediately disintegrate or taking a bar soap and dropping it into the bathtub and having it disintegrate, on the usefulness of such an article. Applicants respectfully submit that Lang et al. neither teaches nor suggests a composition containing a disintegrator. In view of the fact that the articles formed from a composition containing a disintegrator would be completely useless for the use for which they were intended.

Applicants respectfully submit that Lang et al. does not intend that the compositions contain a disintegrator since no statement concerning a disintegrator appears in the specification, or the inclusion of such materials is unintended in view of the use intended for the compacted articles. Applicants submit that if a disintegrator is intended in the composition of Lang et al., it would be selected for only specific uses since generally it would make most of the articles cited in Lang et al. useless.

In addition, Lang et al. teaches that the particulate SAS surfactant material can be included in detergent and cleaning product compositions. Applicants submit that a

Serial No. 10/088,260

Art Unit: 1751

pervulent surfactant does not require a disintegrator since the particle size is generally sufficiently small to provide for rapid dissolution in an aqueous medium. In addition, if the SAS pervulent surfactant requires a disintegrator, the method of preparation of the SAS pervulent material disclosed in Lang et al. would provide a coating on the outside of the particle with the material which the Examiner indicates is a disintegrator. However, a disintegrator on the outside surface of a pervulent material would not be effective since a disintegrator works internally in providing an expanding environment which shatters the particles.

If a disintegrator is incorporated into a mixture provided by the Lang et al. disclosure, it is unrecognized and in most cases unintended. No example in Lang et al. illustrates a composition which could be considered as containing a disintegrator. Applicants submit that the Examiner's rejection is based on a picking and choosing from a large world of possible materials in cleaning formulations to arrive at the composition of the present invention. The rejection appears to be based on the supposition that a group of monkeys randomly typing on typewriters would eventually produce Shakespeare's plays and sonnets. This is an untenable ground on which a rejection under 35 U.S.C. 103(a) can be based. There is no teaching nor suggestion to make an article from the four specific components in the claims and containing the materials in the amounts claimed.

In addition, Lang et al. teaches that fatty acid-protein condensation products obtained by the reaction of fatty acid chlorides with oligopeptides and protein

Serial No. 10/088,260

Art Unit: 1751

hydrolyzates are useful surfactants for mixing with the SAS pervulent coated particles described and disclosed in Lang et al. Applicants respectfully invite the Examiner's attention to the present application beginning at page 8, line 28 extending through page 10, line 3. At this point in the present application, Applicants indicate that the hydrolyzed proteins useful in the procedure of the invention are not surfactants. The specification also teaches that the hydrolyzed protein derivatives useful in the practice of the present invention are condensation products of fatty acids with hydrolyzed protein. Lang et al. is not specific in teaching whether the acid chloride is a carboxylic acid in which the H atom in the carboxyl group has been replaced by a chlorine atom or whether the chlorine atom has been substituted in the hydrocarbon backbone of the carboxylic acid. Both reactions are possible and when reacted with a protein-hydrolyzate provide substantially different products with substantially different properties. When a carboxylic acid having a chlorine substituent in the hydrocarbon group is reacted with a protein hydrolyzate, the carboxylic acid maintains its carboxyl group rather than have the carboxyl group esterified or reacted with the protein hydrolyzate. The condensation product of the fatty acid with the protein hydrolyzate does not contain the unreacted fatty acid carboxyl group as in a product which would be obtained by reacting a chlorinated carboxylic acid with the hydrolyzate.

From the description in Lang et al., Applicants cannot determine whether the fatty acid chloride is chlorinated at the carboxyl group or in the hydrocarbon chain. As discussed above, the products obtained by reacting the two different fatty acid chlorides

Serial No. 10/088,260

Art Unit: 1751

with the protein hydrolyzates would provide different materials having substantially different properties. The protein hydrolyzate containing carboxylic acid residues attached to the hydrolyzate through the hydrocarbon portion of the molecule would

Best Available Copy